Status of foods available in New Brunswick schools

Nutrition Services
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STATUS OF FOODS AVAILABLE IN NEW BRUNSWICK SCHOOLS

1981-82 SURVEY REPORT

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SUMMARY REPORT

Through the fall and winter of 1981-82 a survey was undertaken to establish the current food services and type of food available for students in schools in New Brunswick. Nutritionists in the Department of Health developed a survey questionnaire and instructed Public Health Nurses in conducting an on-site review. Data was collected from 97% of the schools in the province. This information is being used to establish a base from which the impact of program activities may be measured. The availability of nutritious food in schools is considered to be an indication of the awareness of the school administration for the daily nutritional needs of the student.

The attitude of educators towards the importance of nutrition was thought to be reflected negatively when fund raising activities promoted the sale of chocolate bars and positively when nutrition promotion activities were carried on during the school year. These activities would influence the students attitude toward the foods they choose to eat. Knowledge of the current level of school participation in promotion activities would assist the Public Health nurses and nutritionists set priorities for program development.

The survey found that during 1981-82, 58% (87,321) of the students stayed at school for lunch and of this number 42% are estimated to purchase food items. Forty-seven percent (47%) of the reporting schools offered school lunch programs while 33% offered a lunch supplement program. Breakfast programs were offered in only 7% of the schools. Canteens were most popular in secondary schools but were available in 44% of the reporting schools. Vending machines were less popular and were limited in the variety of foods

offered. A total of 84 (19%) of the schools had no food available and of these schools, 27 would not qualify as having a need for a food program.

Food was sold for fund raising projects by 194 (44%) schools. Fifty-seven (57%) were elementary schools and 43% were secondary schools.

Nutrition promotion was carried on in 323 (73%) schools with 71% of the elementary schools and 29% of the secondary schools being involved during the 1981-82 school year.

In order to objectively quantify the availability of nutritious food in schools a scoring system was developed using positive and negative scores for the presence or absence of food programs, and for fund raising, or promotion activities. Food items available were similarly scored according to nutritional contribution towards meeting daily needs. Each school received a score which forms the baseline from which the impact of future program intervention may be measured.

RECOMMENDATIONS FROM THIS SURVEY ARE:

1. That a more concentrated effort be made by schools to review the need for food at school for their students.

2. That schools recognize the desirability of providing nutritious food to reinforce classroom teaching in support of good health.

3. That schools develop fund raising activities that do not involve food items of questionable nutritional value.

4. That all schools become involved with a nutrition promotion program during the school year.

5. That to support the foregoing recommendations, the Departments of Education and Health expand their current School Food Service Consultation Program and the number of nutritionists available to work with schools.

INTRODUCTION

In the past several years questions have been raised about the nutritional quality of food available in schools. Stories of pop and chip diets, "junk" food being sold in school canteens, and poor food choices available for students have been reported. Nutrition Week promotions and school health programs have been providing more nutrition information to students. The public health nutritionists were interested in learning about the current practices for food service and nutrition promotion in order to direct their efforts to the schools that have the greatest need. As food available in the schools has the possibility of influencing student food choices, some means of evaluating the availability of nutritious food in schools was required.

It was decided to carry out a survey of all schools in New Brunswick to establish the number of students currently remaining at school over the lunch hour and purchasing food items, the type of food and services available, and the view of the school in reinforcing nutritional practices as exhibited through activities such as nutrition promotion and food sold for school fund raising projects. The data collected by this survey would establish a baseline on which to measure the impact of program activities stimulated by services from the public health nurses and nutritionists.

SCHOOL FOOD SERVICE 1976-1982

It was known that a great deal of work had been done by the Department of Education in conjunction with the Department of Health over the past several years to establish appropriate school food services. A review of reports[1,2] established that committee work began in 1976 to recommend a policy on school food service. The report[1] stated that the policy should:

i. "reflect the goal of school food service which is to encourage the development of healthful eating habits through education and through ensuring the availability of food which contributes to nutritional health;

ii. acknowledge the commitment by the Department of Education to assist the individual communities throughout the province to achieve this goal. Such assistance would involve provision of the necessary expertise to assist with planning, developing, improving and evaluating programs, and of the necessary facilities and equipment; and

iii. recognize that specific liaison with community is an essential aspect of program implementation."

In 1977-78 a further study was undertaken to determine the feasibility of implementing the committee's recommendations. In practical terms, this study would determine what would be necessary in the way of facilities, equipment, expertise and finance.

The report from the 1977-78 study[2] documented the following information:

. 482 schools in the province had a population of 162,945 students

. 64% of students remained at school over the lunch hour.

. participation in supplemental food and hot lunch was highest in elementary schools and schools in rural areas.

. Beverage programs served 60% of the students.

. Hot and Cold Food or cafeteria program served 40%. The programs were operated by the school's own food service in 50% of the program, while 30% had contracted services.

. The Department of Education contributed salary support to 27% of the School Lunch operations and another 18% received Canada Works contributions.

- It appeared that 60% of the school population must participate in food purchasing if the school lunch program was to reach a break even point.

The report recommended that in order to establish a school lunch program planners must consider the school population, the likelihood of student participation and the facilities available in the schools. A contract was provided to Bernard & Associates to develop models of food service likely to be suitable, to cost equipment and furnishings required, and to provide projected daily operational statements which would require no subsidies or grants. The operational statements were to establish break even points for programs and thus determine to what extent schools could support an up-graded food program.

Bernard & Associates report concluded self supporting programs would require 50 customers for beverage programs and 200 customers for a lunch menu. These conclusions were supported by the following observations:[2]

- *"Without including capital investment and indirect costs. Milk & Juice service can be provided at 20 cents per serving to 50 or more students. (Based on 1977 dollars). If this price is too high or participation lower some means of subsidy must be found.*

- *Once food preparation is introduced into a school food service program, a fairly high volume of customers are required for a supplementary service to be self-supporting with reasonable selling prices. Even with subsidization, this option would not be practical under 100 participants.*

- *It is not practical to offer a full meal service unless the selling price is rather high for a students' budget even when the volume of participants becomes very high. Such a service should not be considered under 200 customers even with subsidization."*

Following this work the 1977-78 School Food Service Report was published presenting the following recommendations:

1. *"That the Department of Education make available the necessary expertise and funds to provide for the improvement of school food service programs.*

2. *The Department of Education makes provision for a nutrition education component in the curriculum for all students.*

3. *That the Department in co-operation with the New Brunswick Community College and the Department of Health undertake to develop and adopt training standards for persons employed in school food service programs.*

4. *That the Department of Education appoint a full-time school food service coordinator to ensure the effective implementation of School Food Service Programs."*

To comply with these recommendations the Department of Education has employed a part-time School Food Service Consultant. The health program has been up-graded and the "Healthful Living Program," with a chapter on nutrition for each grade level from one to eight, is now in place in the Anglophone program with the Francophone program beginning September 1982. A proposal for developing a food service manager training program has been presented to the Deputy Minister of Education for discussion with the administration of Community Colleges and "Guidelines and Standards" for School Food Programs[3] have been developed and circulated to school superintendents.

The School Food Service Consultant reports that in 1980-81 seven new facilities went into the planning stages. One established school lunch program received operational consulting and one school district was provided consulting on contracting the food services for two schools.

By 1982, eleven more new school facilities were in planning stages and the seven facilities that were being planned in 1981 had reached the operational stage. Another three schools received consulting on renovating food service facilities. Up-grading of the food service facilities is moving ahead with programs being developed according to school size and student needs without financial subsidization.

THE ROLE FOR THE PUBLIC HEALTH NUTRITIONIST

Discussions were held with the Department of Education consultants regarding Department of Health support in schools. Teachers had been contacting the public health nurses and nutritionists for health and nutrition teaching ideas and materials. The nutritionist was being asked to assess the school food services and make recommendations for improvement from time to time. However, it was decided a promotion of better eating habits was required to reinforce the nutrition teaching in the health program and to improve the availability of nutritious foods in schools.

A grant was obtained to develop an activity package of suggestions for promotions in schools. The "Learning About Nutrition is Fun!" booklets were produced along with a poster. This material was introduced to teachers through professional development days.

In the fall of 1981 each nutritionist selected a group of schools to work with intensively. Support in terms of workshops, assistance to school health committees providing promotional ideas, setting school objectives for improving food available in schools and for gaining support of parents was provided. The work involved the nutritionist in several visits over a three to four month period to two or three schools. During these visits eating habit studies were done and used as a basis for measuring changes brought about by the promotional activities the teachers became

interested in. This type of work proved to be effective in improving the nutritional quality of food available at school and student eating behavior in the short term, but the approach is very time consuming and should be used in schools identified as having a major need for improvement.

THE NEED FOR MEASURING PROGRAM IMPACT

Each public health region has many schools but there is only one nutritionist per region. How can she effectively stimulate schools to be more concerned about the food available and influence nutritionally good eating habits in students? The nutritionists discussed various means of measuring the effectiveness of programs for schools and decided that the food sold in schools was one indicator that could be measured for change. They had found that students will buy nutritious food when it is available and promoted. The schools could be surveyed for information on current food services, type of food offered, the use of food as a vehicle for fund raising and the promotion of good nutrition. This would be the basis on which to select schools in need of programs that would improve food services or the type of food offered for sale. Schools using chocolate bar sales for fund raising could be encouraged to use other activities and those schools not currently doing a yearly nutrition promotion could become involved through the programs offered by the public health nurses and nutritionist. It is expected that these programs would increase the awareness of school personnel, students and parents about good nutrition and provide learning experiences on which to practice classroom knowledge. The success of the program intervention would be indicated by the increase in promotional activity and the improvement in the availability of nutritious food.

THE QUESTIONNAIRE

The type of school food program available in all schools was recorded by the following questions:

SCHOOL FOOD SERVICE QUESTIONNAIRE

Name of Nurse:_____ Date:_____

Name of School_____ School District:_____

Principal:_____School Population:_____

No. of students staying for lunch:_____ No. of students buying lunch items:_____

1. Is there a school lunch program?_____Yes _____No
   If yes, indicate how often: ___daily ___1/week ___2/week ___3/week ___4/week
   If yes, indicate who provides lunch program: ___volunteers ___teachers
   _____ contract company (indicate name _____) _____private caterer

2. Is there a lunch supplement program_____yes _____no
   If yes, indicate items offered_____
   If yes, indicate how often: ___daily ___1 day/week ___2 days/week ___3 days/week
   ___ 4 days/week

3. Is there a breakfast supplement program _____yes ____no
   If yes, indicate items offered_____

4. Is there a canteen in the school? _____yes _____no
   If yes, indicate food items sold: ___chocolate milk ___white milk ___pop
   ___bars ___chips ___candy ___gum ___minisips ___cough drops
   ___ice cream bars ___fruit drinks ___nuts ___fruit ___other (please
   indicate items:_____)

5. Is there a vending machine in the school? _____yes _____no
   If yes, indicate food items sold: ___chocolate milk ___white milk ___pop
   ___bars ___chips ___candy ___gum ___fruit ___fruit drinks
   ___other (please indicate items_____)

Other school practices such as selling food items to raise funds for sports or school activities and promoting nutritious food selection through Nutrition Week Activities were recorded from the following two questions:

6. Are food items sold for fund raising purposes? ___yes ___no
   If yes, indicate food item sold: ___ FRUIT ___ NUTS ___ CHOC. BARS _____ OTHER
7. Is there a nutrition promotion carried out in this school each year? ___yes ___no

The public health nurses were requested to give their opinion on how they thought the school food program rated.

8. RATE THE SCHOOL PROGRAM

CANTEEN	VERY GOOD ___	GOOD ___	POOR ___	VERY POOR ___
LUNCH	VERY GOOD ___	GOOD ___	POOR ___	VERY POOR ___

In order to establish the type of foods being offered for sale in a school lunch program the following questions were answered when a school lunch program was offered:

Check the appropriate items to indicate those foods included on the menu:

A. Dessert choices daily: ___fruit ___pudding ___cakes & pastries ___plain ice cream ___ice cream sundaes ___jello ___yogurt ___ice doughnuts ___none ___other(please indicate_____)

B. Vegetable choices daily: ___salads ___cooked vegetables ___none other(please indicate_____)

C. Beverages included daily: ___white milk ___chocolate milk ___pure juice ___fruit drinks ___mini sips

D. Are french fries served? ___yes ____no
If yes, are these served ___daily ___1-2 times/week ___other(please indicate_____)
If yes, are french fries served only as part of a whole meal? ___yes ___no

E. Are deep fried foods served daily? ___yes ___no
If yes, indicate type of food served ___fish ___onions ___other(please indicate_____)

Indicate main course items offered:_____
_____

The questionnaire was a means of establishing current school food service activity. In order to evaluate how good or poor this service and promotion practice was in each school, a scoring system was devised.

THE SCORING SYSTEM

Services which would positively supportnutritional practices of students and reinforce classroom learning were given a +1 score. Those practices that did not support and reinforce good nutrition were given a -1 score. As it is not possible to negatively score a food that has excellent nutritional qualitites but the form in which it is served reduces or adds less desirable nutritional qualities, milk was given a differential score. Chocolate Milk received a +1 score and White Milk was given a +2 score. Table III provides the scoring for each question.

The nutritional quality of main course items was not scored as the variety and nutrient variation was complicated. Rather, items that could be a source high in fat or sugar, such as fried foods and desserts, were scored. As well the frequency of the availability of fruit and vegetables on the menu was recorded and scored.

If a school lunch or supplement program was offered daily this was scored positively for each day; +5 represented a program offered five days per week, +1 represented a program one day per week. Similarly, deep fried foods received negative scores according to how often they were served.

A routine score was also given for activities that reinforced good nutritional practices. A negative score was given to fund raising activities using food when it was believed that food items of questionable nutritional value such as chocolate bars were most often the item sold. A positive score was given for a nutrition promotion carried on in the school as it has been

found during "Nutrition Week" that this activity prompts schools to provide nutritious food items.

A review of the opinion rating score given by the public health nurses for the school canteen and lunch programs, indicated these ratings were not consistent with the observable scores for programs and available foods. The opinion scores therefore are not included in the final school scores.

Each school received two scores, a positive and a negative score. If a school had a school lunch program, a canteen and a breakfast program, did not sell food for fund raising and, had a nutrition promotion yearly, a possible positive score of +31 and 0 negative score could be achieved. A school with no lunch program, supplement, or breakfast program but with a canteen that sold only high calorie empty nutrient foods, sold chocolate bars for fund raising, and did not do a nutrition promotion, would score a +1 and a -14.

A rating score for each school was compiled based on the difference between the positive score and the negative score. The scores were placed on a rating scale for each school district and for each public health region. A provincial rating was plotted in order that comparisons could be made to establish in which schools more nutrition support needed to be provided either in the form of making food available or in improving the nutritional quality.

Schools that had very few students that stayed for lunch, usually had no food available but many carried on a nutrition promotion particularly for lunches brought from home and did not use food for fund raising purposes. These schools tended to receive a score of +2 -5. This score appears to be entirely satisfactory for the situation. The final rating score for such a school would be -3. Table I illustrates the possible scoring for each item in the questionnaire.

TABLE I SCORING THE QUESTIONNAIRE

1. Is there a school lunch program? (+1) Yes (-1) No
   If yes, indicate how often: (+5) daily (+1) 1/week (+2) 2/week (+3) 3/week (+4) 4/week
   If yes, indicate who provides lunch program: ___volunteers ___teachers
   _____ contract company (indicate name _____) _____private caterer

2. Is there a lunch supplement program (+1) yes (-1) no
   If yes, indicate items offered _____
   If yes, indicate how often: (+5) daily (+1) 1 day/week (+2) 2 days/week (+3) 3 days/week (+4) 4 days/week

3. Is there a breakfast supplement program (+1) yes (-1) no
   If yes, indicate items offered _____

4. Is there a canteen in the school? (+1) yes (-1) no
   If yes, indicate food items sold: (+1) chocolate milk (+2) white milk (-1) pop (-1) bars (-1) chips (-1) candy (-1) gum (-1) minisips (-1) cough drops (+1) ice cream bars (-1) fruit drinks (+1) nuts (+1) fruit ___other (please indicate items: _____)

5. Is there a vending machine in the school? (+1) yes (-1) no
   If yes, indicate food items sold: (+1) chocolate milk (+2) white milk (-1) pop (-1) bars (-1) chips (-1) candy (-1) gum (+1) fruit (-1) fruit drinks ___other (please indicate items _____)

6. Are food items sold for fund raising purposes? (-1) yes (+1) no
   If yes, indicate food item sold: ___FRUIT ___NUTS ___CHOC. BARS _____ OTHER

Check the appropriate items to indicate those foods included on the menu:

A. Dessert choices daily: (+1) fruit ___pudding (-1) cakes & pastries (+1) plain ice cream (-1) ice cream sundaes (-1) jello (+1) yogurt (-1) ice doughnuts ___none ___other (please indicate _____)

B. Vegetable choices daily: (+1) salads (+1) cooked vegetables (-1) none other (please indicate _____)

C. Beverages included daily: (+2) white milk (+1) chocolate milk (+1) pure juice (-1) fruit drinks (-1) mini sips

D. Are french fries served? (-1) yes (+1) no
   If yes, are these served (-5) daily (-3) 1-2 times/week ___other (please indicate _____)
   If yes, are french fries served only as part of a whole meal? (+1) yes (-1) no

E. Are deep fried foods served daily? (-5) yes (+5) no
   If yes, indicate type of food served ___fish ___onions ___other (please indicate _____)

Indicate main course items offered: _____

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7. Is there a nutrition promotion carried out in this school each year? (+1) yes (-1) no

SCHOOL SCORE + ___

- ___

RESULTS & DISCUSSION

Through the fall and the winter of 1981-82 a survey was undertaken in all schools in New Brunswick to establish what foods are being made available to students during the school day. The survey was directed by the regional nutritionists who instructed public health nurses to carry out the survey during the normal course of their service to schools. A copy of the questionnaire appears in Appendix I.

Data was collected on 443 schools, 97% of the 458 schools in the province. (453 schools under Department of Education plus 3 private schools and 2 special schools). Schools were classified into elementary and secondary schools to provide an indication of age groups being provided food services. Some schools did not fit either category clearly and were placed in either secondary or elementary depending on where the greatest number of grade levels occurred. For example, elementary schools were considered to be Grades 1-6, 1-9, and 1-12 while secondary schools were Grades 10-12, 7-12, 7-9 or 6-8.

Table II indicates the number of schools, school population, the number and percentage staying for lunch as well as the number and percentage of students that stayed for lunch and purchased food items.

In New Brunswick during the fall and winter of 1981-82 58% of the student population stayed at school for lunch, a total of 87,321 students. Forty-two percent (42%) of the students staying at school purchased food items. The results reported by district will be found in Table III.

In comparing the 1981-82 data with the 1977-78 School Lunch Report, there has been a reduction in the school population of approximately 13,395 students. In 1977-78, 64% of the students stayed at school over the lunch hour while in 1981-82 this had dropped to 58%, a reduction of 6%.

The number of students staying for lunch ranged in the recent survey from 30% in School District 15 to 95% in School District 9.

TABLE II STUDENT PARTICIPATION
PUBLIC HEALTH REGIONS

	I	II	III	IV	V	VI & VII	PROVINCE
Number of Schools Reporting	101	100	88	37	21	96	443*
1981-82 Total School Population	33,953	34,266	30,354	11,638	7,873	31,467	149,551
Number Reported Staying for Lunch	18,173	21,591	18,462	5,539	4,612	18,944	87,321
% Staying for Lunch	53%	63%	61%	48%	59%	60%	58%
E Number Purchasing Food Items	6,870	8,438	8,057	2,253	2,109	9,320	37,047
% Purchasing Food Items	38%	39%	44%	40%	46%	49%	42%

*Includes 3 private schools and 2 special schools
96% of Department of Education Schools

E Estimated Figures

TABLE III STUDENTS STAYING AT SCHOOL FOR LUNCH

SCHOOL DISTRICT	PUBLIC HEALTH REGION	SCHOOL POPULATION	# STAYING FOR LUNCH	% STAYING FOR LUNCH
1	IV	1,534	600	39%
5	VI	3,539	2,145	60%
6	VI	3,179	1,577	50%
7	VI	5,738	3,477	60%
8	VII	5,017	3,090	61%
9	III	1,480	1,418	95%
10	VII	3,500	1,920	55%
12	I	3,186	2,185	68%
13	I	8,671	5,486	63%
14	I	2,308	1,950	84%
15	I	13,365	3,992	30%
16	I & II	2,352	1,289	55%
17	I	941	490	52%
18	II	2,727	2,017	74%
19	II	7,200	6,136	85%
20	II	18,554	9,040	49%
21	II	1,799	1,640	91%
22	II	478	450	94%
23	II	3,132	1,987	63%
24	II & III	2,287	1,930	84%
25	III	4,150	1,823	44%
26	III	11,682	6,141	53%
27	III	935	653	70%
28	III	2,048	1,073	52%
29	III	2,867	2,275	79%
30	III	2,515	2,145	35%
31	III	2,390	1,004	42%
32	IV	3,317	1,450	44%
33	IV	6,787	3,489	51%
35	V	1,730	1,335	77%
36	V	2,143	1,014	47%
37	V	2,072	1,196	58%
38	V	1,928	1,067	55%
39	I & VII	3,195	2,624	82%
40	I	1,066	940	88%
41	VI	5,736	3,296	57%
42	VI	3,627	2,856	79%

SCHOOL PARTICIPATION IN FOOD PROGRAMS

The results of the survey indicated that 208 (47%) of the reporting schools offered a school lunch program. One hundred and forty-eight (148) 33% of the schools offered a lunch supplement - usually a single food item such as milk offered daily or hot dog sales one or two times per week, or hot soup two or three times per week. Breakfast programs occurred in only 32 (7%) of the schools. Canteens were available in 196 (44%) schools and occurred most often in secondary schools. Vending machines were less popular and were available in only 18% of the schools. A total of 84 (19%) schools had no food available. Of the 84 schools 27 (32%) did not qualify for a food program.

Table IV indicates the number of schools participating in food programs by Public Health Region in the province.

SCHOOL LUNCH PROGRAMS

As previously stated 208 (47%) of the reporting schools had lunch programs. The highest number of programs was reported in Region I, Moncton, 59 programs representing 58% of the schools in the region.

Region IV, Edmundston reported 27 (73%) schools of the 37 schools in the survey as having a lunch program. This was the highest regional participation rate. It is interesting to note that this region also had the lowest percentage of students, 48% (5,539) students, staying for lunch.

Region II, Saint John reported the lowest percentage, 28% of the schools participating in school lunch programs. This region had 63% (21,591) students staying at school for lunch. Clearly this region should review the need for lunch program participation.

TABLE IV SCHOOL PARTICIPATION IN FOOD PROGRAMS & * NUTRITION PROMOTION ACCORDING TO PUBLIC HEALTH REGIONS

N = 443

FOOD PROGRAM	I	II	III	IV	V	VI & VII	PROVINCE
School Lunch	59	28	32	27	9	53	208
% of Schools	58%	28%	36%	73%	43%	55%	47%
Lunch Supplement	36	24	37	16	6	29	148
% of Schools	36%	24%	42%	43%	29%	30%	33%
Breakfast	9	12	4	4	-	3	32
% of Schools	9%	12%	5%	11%	-	3%	7%
Canteen	39	58	47	10	3	39	196
% of Schools	39%	58%	53%	27%	14%	41%	44%
Vending Machines	7	22	26	9	4	14	82
% of Schools	7%	22%	30%	24%	19%	15%	18%
Food Sold For Fund Raising	42	55	47	18	7	25	194
% of Schools	42%	55%	53%	49%	33%	26%	44%
Nutrition Promo.	82	78	50	22	15	76	323
% of Schools	81%	78%	57%	59%	71%	79%	73%

*This information is reported by School District within each Public Health Region in Appendix II

LUNCH SUPPLEMENT PROGRAMS

Lunch supplement programs were available less frequently than school lunch programs. Some schools provided the opportunity for students to supplement their lunch from home without purchasing the total lunch. One hundred and forty-eight (148) or 33% of the schools provided a lunch supplement program. Public Health Region IV, Edmundston had the highest percentage of schools, 43% participating in this program. Region II Saint John, had the lowest percentage, 24% providing the supplement programs. The lunch supplement program was provided in a sporatic manner in many schools in Region III, Fredericton.

BREAKFAST PROGRAMS

Breakfast programs were available in very few schools in the province. There was no participation in Region V, Campbellton, in either elementary or secondary schools. The greatest number of schools participating in breakfast programs occurred in the secondary schools in Regions I & II, Moncton and Saint John. Knowledge of student eating habits in individual schools would establish whether this program should be made available more often.

CANTEENS

In 196 schools, canteens provided a source of food for students. Schools providing lunch programs and other services as well as canteens are included in this number. Canteens have the potential for providing a good source of nutritious food. As 44% of the schools indicate they have this facility, they should be encouraged to improve their nutritious food choices. Forty-two percent (42%) of the canteens were reported in secondary schools with the greatest number 23, appearing in Region III, Fredericton. This no doubt was used to augument lunches brought from home in the schools without a lunch program. The greatest number of elementary schools (38) with canteens, occurred in Region II, Saint John. Fewer canteens appeared in elementary

schools in Region IV, Edmundston, however, this area reported the greatest number of schools with school lunch programs and perhaps had less need for canteens.

The least often used method for providing food in schools was vending machines. Eighteen percent (18%) of the reporting schools had these machines and tended to use them for the sale of pop and chips. The potential for selling a variety of food items through this type of service does not seem to be realized by schools.

FOOD AND FUND RAISING

Many schools look for ways of supplementing their school budgets in order to provide special opportunities such as sports or equipment for their students. It had been expected that a great many schools sold chocolate bars for this purpose. This activity sometimes appeared to be incompatible with the project the funds would be used for. For example, good nutrition is needed for active sport participation yet chocolate bars which are high in calories and sugar and considered to have questionable nutrition value are sold to raise money for sports activities. The survey reported 44%, (194) schools sold food for fund raising--43% were secondary schools and 57% were elementary schools. Region II, Saint John had the greatest percentage of schools 55% involved while the lowest was in Region VI & VII Bathurst, where only 26% of the schools participated.

NUTRITION PROMOTION

It was thought that schools involved in nutrition promotion activities directed towards changing students eating habits would provide a more favourable climate for practising good nutritional habits. The availability of food in school could reinforce classroom learning about nutrition. Nutrition Week has over the past four years provided interested schools an opportunity to involve

students in projects. The nutritionists wanted to know how many schools had been involved in promoting nutrition in the past year. The survey results indicated 73% (323) schools had become involved in nutrition promotion activity. Seventy-one percent (71%) of these schools were elementary schools and 29% were secondary schools. (See Appendix II). Region I, Moncton reported the highest percentage of schools, 81% participating, while Region III, Fredericton reported the lowest participation rate, only 57%. Further data analysis is required to clearly establish the relationship between food services offered and nutrition promotion activity. Table IV indicates participation by public health region.

Table V indicates the number of schools in each school district that reported involvement in nutrition promotion activities. Five school districts reported 100% of the schools promoted nutrition in the past year. At the other end of the scale three school districts reported 0 to 2 schools participating. Clearly this survey is a screening tool indicating to the nutritionist which school districts and schools she should direct her efforts in encouraging nutrition promotion activity. Analysing the data according to school districts provides the nutritionist with valuable background data to use in stimulating schools to take action.

AVAILABLE FOOD VARIETY

School lunch programs made available a wide variety of low cost meals. It appears that contract food services provide a more varied menu than volunteer groups. However, many small private caterers provided a very nutritious variety of foods on their menu. The data from this survey has been shared with the School Food Service Consultant in the Department of Education in order that a review of the food offered in lunch menus may be made.

TABLE V

SCHOOLS PROMOTING NUTRITION

DISTRICT	NO. SCHOOLS	%	DISTRICT	NO. SCHOOLS	%
1	5	100%	23	7	87%
5	7	64%	24	8	88%
6	5	42%	25	1	6%
7	16	84%	26	10	38%
8	14	77%	27	2	5%
9	5	71%	28	0	0
10	14	93%	29	8	100%
12	9	69%	30	5	55%
13	23	82%	31	6	60%
14	4	66%	32	7	70%
15	27	84%	33	10	43%
16	9	100%	35	5	83%
17	4	100%	36	4	30%
18	6	75%	37	4	80%
19	13	86%	38	2	40%
20	42	77%	39	5	45%
21	5	71%	40	2	66%
22	2	100%	41	12	86%
			42	6	75%

This survey focused on the frequency that items high in sugar, salt and fat were offered. The foods that were high in calories (kilojoules) and low in nutrients were of most concern. It was difficult therefore to estimate the nutritional quality of main course menu items as these tended to be mixed dishes and would have required considerable analysis to establish quality. For the purpose of this survey this detail was not required.

Table VI identifies the items most frequently appearing as main course items according to public health regions. It is interesting to note that hot dogs are the most frequently served item; with hamburgers, meat and vegetables, and soup the next most offered item. Regions I & II, Moncton and Saint John served hot dogs more frequently than other areas. This may be due to the limitations of school facilities or the skill of the service providers in preparing a variety of foods.

Vegetables were available as cooked in 61% of the lunch programs and as salads in 45% of the lunch programs. Region I, Moncton provided these items in 66% and 46% of their lunch programs respectively followed by Region VI & VII who provided cooked vegetables 64% and salad 49% in lunch programs. Vegetables were available frequently where full meals were served.

French fries appeared in 36% of the lunch programs on a daily basis while 23% of the programs provided this item one to two times per week. This was much less than anticipated from unsolicited reports. The regions with the greatest number of schools offering French fries daily were Regions IV & V, Edmundston & Campbellton where 52% & 55% of the schools offered this item in their lunch program. Regions VI & VII & III, Bathurst & Fredericton had the lowest percentage of schools offering French fries, 25% and 19% respectively. Table VII details the number of schools in each region offering vegetable & dessert items on their school lunch menu.

TABLE VI

SCHOOL LUNCH FOOD ITEMS AVAILABLE
NUMBER OF SCHOOLS BY PUBLIC HEALTH REGION

FOOD ITEM	I N=59	II N=28	III N=32	IV N=27	V N=9	VI & VII N=53	PROVINCE N=208	%
MAIN COURSE								
COMPANY MENU	13	4	10	-	-	20	37	18
HOT DOGS	30	28	13	16	2	12	101	49
HAMBURGERS	29	7	5	11	0	12	64	31
SPAGHETTI & PASTA	20	9	6	19	5	10	69	33
PIZZA	5	0	2	5	0	4	16	8
SOUP	19	9	9	13	1	6	57	27
SANDWICHES	15	6	5	7	0	2	35	17
SLOPPY JOES	10	2	3	2	3	0	20	10
MEAT & VEGETABLES	8	15	7	13	3	13	59	28
BEANS & WEINERS	1	0	0	0	0	0	1	.4
CHINESE FOODS	3	3	1	0	0	0	7	3
FISH & CHIPS	12	1	3	4	2	1	23	11
STEW	0	0	3	14	1	0	18	9
FRIED CHICKEN	0	0	0	15	0	5	20	10

TABLE VII

SCHOOL LUNCH FOOD ITEMS AVAILABLE DAILY
NUMBER OF SCHOOLS BY PUBLIC HEALTH REGION

FOOD ITEM	I N=59	II N=28	III N=32	IV N=27	V N=9	VI & VII N=53	PROVINCE N=208	%
VEGETABLE CHOICES								
Salads	27	8	10	16	6	26	93	45
Cooked Vegetables	39	15	11	22	6	34	127	61
French Fries	26	10	6	14	5	13	74	36
Fr. Fries 1-2X-WK.	5	3	13	9	3	15	48	23
DESSERT ITEMS								
Fruit	45	21	15	15	8	27	197	95
Pudding	30	12	10	18	6	30	106	51
Cakes & Pastries	28	15	10	24	7	35	119	57
Ice Cream	27	12	10	10	3	20	82	39
Sundaes	3	2	1	0	0	5	11	5
Jello	33	13	8	22	5	31	112	54
Yogurt	21	4	9	2	3	13	52	25
Iced Doughnut	9	5	3	10	0	9	36	17
Cookies	0	1	0	1	0	1	3	1

Foods such as cakes, pastry and doughnuts are of questionable nutritional value and were frequently reported as items available in school lunch programs. The survey however, reported that fruit was available in 95% of the schools lunch programs while cakes and pastries appeared 57% of the time. However, the cake and pastries did appear as menu items more frequently in Regions IV, 88%; Region V, 77%; Region VI & VII 66%, the northern part of the province, compared to Regions I, 47%; Region II, 54%; and Region III, 31% in the south-eastern part of the province. This difference may partially be explained by the stated preference for sugary desserts by the French population concentrated in the northern areas.

Generally, the most frequently offered desserts were fruit, cakes and pastries, jello, pudding and ice-cream. Information on which items are sold most frequently was not obtained by this survey but availability on the menu indicates the popularity with students and sales appeal.

BREAKFAST PROGRAM FOOD VARIETY

In the 32 schools offering a breakfast program, milk, toast, muffins sandwiches, juice and fruit were the items most frequently made available. Only three schools indicated they served cereal. One of these schools stated their teachers prepared hot cereal for the students on cold mornings as they felt it was important to get the children off to a good start for the day. The frequency of breakfast items served in schools is available in Table VIII. Before recommendations can be made to schools on breakfast programs more information would have to be known about students arriving at school without eating breakfast.

TABLE VIII

FOOD ITEMS AVAILABLE IN SCHOOLS

BREAKFAST PROGRAM

NUMBER OF SCHOOLS BY PUBLIC HEALTH REGION

FOOD ITEM	I N=9	II N=12	III N=4	IV N=4	V N=0	VI & VII N=3	PROVINCE N=32
Milk	5	8	3	3	0	2	21
Toast, Sandwich, Muffins	7	5	3	2	0	2	19
Fruit & Fruit Juice	7	5	1	3	0	2	18
Cereal	1	2	0	0	0	0	3
Eggnog	1	0	0	0	0	0	1
Eggs & Bacon	2	0	0	0	0	0	2
Yogurt	1	0	0	1	0	0	2
Doughnuts	1	0	0	0	0	0	1
Coffee	1	1	1	0	0	1	4
Hot Chocolate	1	1	0	0	0	0	2
Cheese	0	0	1	1	0	0	2
Chips & Popcorn	0	0	0	1	0	0	1
Ice Cream	0	0	0	1	0	0	1
Cakes	0	0	0	1	0	0	1

VARIETY OF FOODS IN SCHOOL CANTEENS

Table IX indicates the food items most frequently available in school canteens. Of the 196 schools with canteens 53% (103) offered chips, 52% (101) offered white milk, 33% (65) offered fruit and nuts, 30% (59) offered chocolate milk, 30% (58) offered fruit drinks. In the 196 canteens, pop and chocolate bars were offered 20% (39) and 18% (36) respectively. This frequency was less than anticipated. The list of food items available in canteens varied from school to school. Schools offering a limited selection of nutritious food items should be encouraged to include more fruits, fruit juices, nuts, cheese and crackers. Schools receiving low scores on this survey will require suggestions and recommendations from the public health nurses and nutritionists for improving the canteen items.

VARIETY OF FOOD SOLD FOR FUND RAISING

Table X indicates the limited variety of food items that were sold for fund raising purposes by schools. The survey supported the belief that the most popular selling item was chocolate bars 67% (131) of the schools involved in this type of fund raising sold this item. Fruit was the next most popular fund raising item with 15% (30) of the schools selling oranges or grapefruit. Nuts were sold by 10% (21) of the schools. Other items reported were fudge sales, baked goods and a turkey lottery.

TABLE IX

FOOD ITEMS AVAILABLE IN SCHOOLS

SCHOOL CANTEENS

NUMBER OF SCHOOLS BY PUBLIC HEALTH REGION

FOOD ITEM	I N=39	II N=53	III N=47	IV N=10	V N=3	VI & VII N=39	TOTAL PROV. N=196
Chocolate Milk	11	12	9	5	1	21	59
White Milk	32	21	14	4	1	28	101
Pop	3	9	13	8	0	6	39
Chips	12	45	20	9	1	16	103
Candy	5	6	0	7	0	2	20
Gum	6	1	5	2	0	1	15
Chocolate Bars	6	12	12	5	0	1	36
Minisips	2	5	0	0	0	8	15
Cough Drops	2	0	2	3	0	3	10
Ice Cream	5	18	6	3	0	13	45
Fruit Drinks	15	11	15	6	0	11	58
Nuts	17	15	16	7	1	19	65
Fruit	17	17	8	3	2	18	65
Cheese & Crackers	0	5	0	1	0	8	14
Raisins	0	2	0	0	0	0	2
Granola Bars	0	2	0	0	0	5	7
Sandwiches	0	2	0	0	0	1	3
Seeds	0	3	0	0	0	1	4
Popcorn	0	1	0	0	0	0	1
Yogurt	0	0	0	1	0	2	3

TABLE X

FOOD SOLD FOR FUND RAISING
NUMBER OF SCHOOLS BY PUBLIC HEALTH REGION

FOOD ITEM	I N=42	II N=55	III N=47	IV N=18	V N=7	VI & VII N=25	PROVINCE N=194	%
CHOCOLATE BARS	29	43	25	10	5	19	131	67
FRUIT	5	9	7	2	0	7	30	15
NUTS	5	5	8	0	0	3	21	11
OTHER	1	14	8	7	3	1	34	17

RATING THE SCHOOLS

Each school received a rating score as previously described. The difference between the positive and negative scores provided a numerical score for each school. This score was plotted on a +/- scale with the provincial distribution of scores divided according to schools scoring in the top third, middle third and lowest third. Table XI illustrates that provincially, one third of the schools received a score that fell in the range +28 to +8. Another third fell in a mid-range with scores +7 to -1. In the bottom third, the school scores ranged -2 to -10. Similar distributions were plotted for schools according to school districts. Table XII provides the same information as Table XI except the scores are not grouped into health regions - rather they are presented by school district. This table also indicates which school districts could be considered to have major populations in urban (U) and rural (R) areas. There appeared to be more schools scoring in the middle to low range in the urban school districts 15, 20, 25, 26 & 42. Some school districts appeared to be clearly rural while others were urban/rural mix.

THE IDEAL SCORE

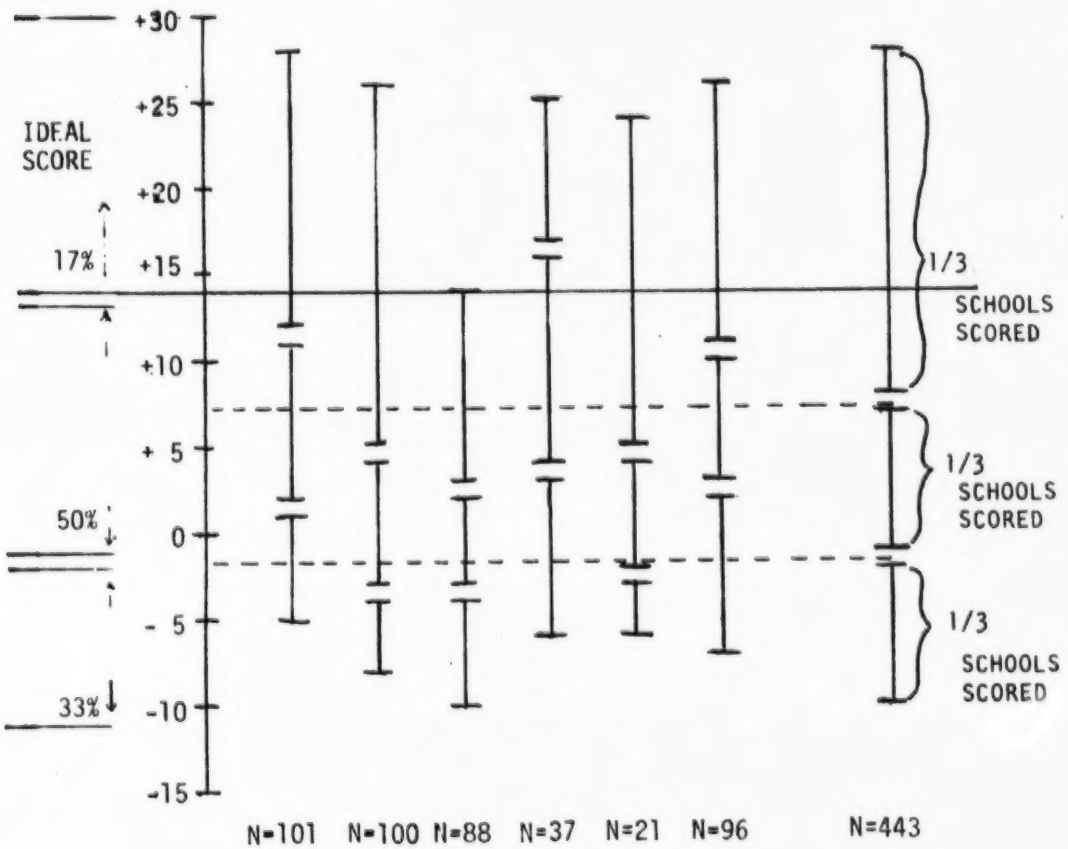
The maximum possible score for schools with a lunch program was +36. This score results if all the + scores were obtained for a daily lunch program, a breakfast program, canteen, fund raising and promotion. Many schools did not have enough students staying for lunch to qualify for a lunch program but did provide a daily lunch supplement as well as having a canteen with + scoring items. If these schools also promote nutrition and avoided fund raising activities using food then they would obtain an ideal score of +14 -- arbitrarily considered to represent acceptable food and nutrition practices.

Table XI indicates that 17% of the schools scored +14 or above, 50% were in the mid-range -1 to +13 and 33% were below -2. Most schools in the mid and lower ranges require attention on specific problem areas that are identified in the profile sheets below.

In Region III, Fredericton, none of the schools obtained the ideal score. In Region IV, Edmundston more than one third (1/3) of the schools scored in the range. In Region I, Moncton; Region II, Saint John; Region V, Campbellton and Regions VI & VII, Bathurst more than two thirds (2/3) of the schools scored below the ideal score. This indicates that schools across the province need encouragement and practical ideas for improving the availability of nutritious food.

TABLE XI

RATING SCORES FOR SCHOOL FOOD PROGRAMS ACCORDING TO PUBLIC HEALTH REGIONS



IDEAL SCORE: -

SCHOOLS WITH LUNCH PROGRAM SCORE +36

SCHOOLS QUALIFYING FOR LUNCH SUPPLEMENT SCORE +14

TABLE XII

SCHOOL DISTRICT SCHOOL FOOD SERVICE RATINGS

n = 443 SCHOOLS REPORTING

R = Rural School
U = Urban School

SCHOOL DISTRICT

RATING	1	5	6	7	8	9	10	12	13	14	15	16	17	18	19	20	21	22	23	24	
+30																					+30
+28											1										+28
+26				1												1					+26
+24									4	1											+24
+22									1			1									+22
+20		1		1	1				2							1					+20
+18		1			1			3		1	1					1					+18
+16				2					3							1	1		1		+16
+14			1		2		1	3	4		2					1			1		+14
+12	1	2	1	3			2		1	2						2	1	1		1	+12
+10				1	4		2	1		1				1	1	1			1	1	+10
+ 8	2	1	1	2	2		1	2	2		2					4				1	+ 8
+ 6	1				1			1				2		2	1	2		1	1		+ 6
+ 4		1		1	3		1	1	1		4			1		4			3	1	+ 4
+ 2	1		1	1	2	3	4	1	3		4	1	1			1				2	+ 2
0			1	3	1	2	2		4		3	1		1	4	9	3			3	0
- 2		4	1	1		1	1	1	1		9	3	1	1	4	11	2				- 2
- 4			1	3	1		1		2	1	6	1	2	2	5	10			1	1	- 4
- 6			2			1										4					- 6
- 8																4					- 8
-10																					-10
	R N=5	R N=10	R N=9	R N=19	R N=18	R N=7	R N=15	R N=13	R N=28	R N=6	U N=32	R N=9	R N=4	R N=8	R N=15	U N=57	R N=7	R N=2	R N=8	R N=10	

⅓ SCHOOLS SCORED

⅓ SCHOOLS SCORED

⅓ SCHOOLS SCORED

TABLE XII CONT'D

R = Rural School
U = Urban School

SCHOOL DISTRICT SCHOOL FOOD SERVICE RATINGS
N = 443 SCHOOLS REPORTING

RATING	SCHOOL DISTRICT 25	26	27	28	29	30	31	32	33	35	36	37	38	39	40	41	42	
+30																		+30
+28																		+28
+26																		+26
+24									2				1					+24
+22									2									+22
+20									2									+20
+18									3					1		1		+18
+16								1	2					2		1	1	+16
+14		1						1	2					2		1		+14
+12								1	1			1				2		+12
+10					1				1	1				1		2		+10
+ 8						1	5	1		1				1		2	2	+ 8
+ 6		3			3		3			1		1		1	1	1		+ 6
+ 4		2		1	1	2			1		2				1	1	2	+ 4
+ 2	2	4						2	1				2	1				+ 2
0	1	6	1	1	1	2				1	1			1	1	1	1	0
- 2	1		1	1	1			1		1	2	2		1		2		- 2
- 4	6	4	1	1		1		3	4			1	2				2	- 4
- 6		2		3	1	1			1	1								- 6
- 8				1														- 8
-10			1															-10
	U N=15	U N=22	R N=4	R N=8	R N=8	R N=7	R N=8	R N=10	R-U N=22	R N=6	R N=5	R-U N=5	R-U N=5	R N=11	R N=3	R N=14	U N=8	

1/3 SCHOOLS SCORED

1/3 SCHOOLS SCORED

1/3 SCHOOLS SCORED

SCHOOL DISTRICT PROFILES

School district profiles were developed listing name of school, grade level, student enrollment, percent remaining for lunch, food service available, food sold for fund raising, nutrition promotion, rating score, school score and comments related to the food program. These profiles may become quick reference tools for setting work priorities for nutritionists. Table XIII illustrates the profile for two school districts.

The example profile sheet in Table XIII indicates that the school with the low +2 score in District I has a low positive score and therefore is probably offering too many high calorie empty nutrient foods. This school appears to have an ambitious food service program for a relatively small number of students (59) remaining over the lunch hour. No doubt tne private caterer is having some difficulty making a profit. A review of this service could improve the nutritional quality.

The school in District 18 with the -4 score should be encouraged to provide a school lunch program as they have approximately 347 students staying at school over the lunch period. As well, the school with the -5 score should be encouraged to provide more services than a canteen. The school with the -3 score should be encouraged to have lunch supplements and/or a nutritious canteen.

TABLE XIII EXAMPLE: SCHOOL DISTRICT PROFILES

P.H. IV

SCHOOL	GRADE LEVEL	STUDENT ENROLLMENT	% REMAINING FOR LUNCH	FOOD SERVICE 1. LUNCH PROG. 2. LUNCH SUPP. 3. BREAKFAST SUPP. 4. CANTEEN 5. VENDING MACHINE	FOOD SOLD FOR FUND RAISING	NUTR. PROMO.	RATING SCORE ±	RATING SCORE -	COMMENTS	SCHOOL SCORE
DISTRICT 1										
A.J. SAVOIE	7 -12	450	33%	1, 4, 5	Yes	Yes	25	16	Private Caterer	+ 9
ELEMENTAIRE DE KEDGWICK	1 - 7	342	35%	1	Yes	Yes	18	12	Private Caterer	+ 6
MARIE-GAETANE	1 - 6	237	25%	1, 4, 5	Yes	Yes	19	17	Private Caterer	+ 2 *
MGR. MARTIN	1 - 6	430	51%	1	Yes	Yes	21	13	Private Caterer	+ 8
ST. JEAN-BAPTISTE	1 - 6	75	66%	1	No	Yes	20	7		+13
District 18										
APOHAQUI	1 - 6	115	75%	2,	NO	NO	4	5	Milk - every day	- 1
LOWER MILLSTREAM	1 - 4	49	61%	2,	NO	NO	11	5	Milk & Hot Dogs sale - 1X week	+ 6
NORTON ELEM.	1 - 5	130	46%	2, 4	YES	YES	15	5	Hot Dog Sale 1X week	+10
NORTON JR. HIGH	6 - 9	111	67%	4	YES	YES	2	7	Hot Dog Sale 1X week	- 5 *
SUSSEX CORNER	1 - 6	374	73%	—	NO	YES	2	5		- 3 *
SUSSEX ELEM.	1 - 6	640	78%	—	NO	YES	8	4	Hot Dog Sale 2X week	+ 4
SUSSEX JR. HIGH	7 - 9	667	52%	5	YES	YES	3	7		- 4 *
SUSSEX REG. HIGH	10 -12	641	75%	1,2,3,5	NO	YES	23	17	Beaver Foods Contract	+ 6

Schools not undertaking nutrition promotion activities should be provided suggestions and support materials to encourage their participation.

These profile sheets also identify information for the public health inspectors on where food preparation is being carried on in schools. This information will assist them in providing programs that will help schools maintain sanitary food service conditions, a very important factor in providing food to students.

The complete set of school district profile sheets are available on request.

CONCLUSION

The school food survey undertaken during the fall and winter 1981-82 has provided an information data base on 443 schools in the province regarding student enrollments, the number staying at school for lunch, the type of food service in each school, fund raising and nutrition promotion. The school profiles provide a source of information for setting regional priorities for public health nutritionists, nurses and inspectors working with schools. The information can be used as the base for measuring changes taking place in schools as a result of public health programs.

Answering the question on the nutritional quality of food available has been made possible by the scoring method used in analysing the questionnaire responses. The numerical scores are supported by the observations of public health personnel and other ad hoc reports.

The survey scores for schools in the province clearly indicate that only a few schools, 17% are providing excellent nutritious food programs. The other 83% should improve their school food services by making them more nutritious and providing students with an opportunity to practice the principles of nutrition taught in the classroom.

The survey supported the belief that chocolate bars were commonly sold for fund raising as 67% of schools selling food for fund raising sold this item. The survey also provided information to the nutritionists about how involved schools had become with nutrition promotion, 73%.

The amount of French fries sold in schools daily was much less than anticipated, 36% of schools with lunch programs. Pop was another item not sold in school canteens as frequently as expected, only 20% of the canteens indicated they sold this beverage.

The potential for the use of vending machines to sell food items other than pop and chips needs to be explored. It is possible more nutritious items could be sold through this service. The question of how many children would benefit from having breakfast programs in schools should be investigated. This could have a major influence on the student's ability to concentrate on his school work and thus affect learning.

Schools should be exploring other ways and means for fund raising. Suggestions and ideas appear to be needed in order for schools to reduce chocolate bar sales.

Nutrition promotion should become an activity in all schools in New Brunswick to reinforce the classroom health program and stimulate health behavior.

Schools without food service or canteens should focus on nutrition programs that involve the lunch brought from home. Consideration should be given to lunch supplement programs in more schools and/or school lunch programs where the number of students staying for lunch will support the program.

Schools need to become aware of the value of having students nutritionally well fed so they can make the most of their educational opportunity.

RECOMMENDATIONS:

1. That an increased effort be made by schools to review the need and to provide food at school for their students.

2. That schools recognize the desirability of providing nutritious food to reinforce classroom teaching in support of good health behavior.

RECOMMENDATIONS: Cont'd

3. That all schools become involved with a nutrition promotion program during the school year.

4. That schools develop fund raising activities that do not involve food items of questionable nutritional value.

5. That to support the above recommendations, the Departments of Education & Health expand their current School Food Service Consultation Program and the number of nutritionists available to work with schools.

REFERENCES

1. School Food Service in New Brunswick, Report of the Department of Education and Department of Health, October 1976

2. Report of Study on School Food Service in New Brunswick
Department of Education, July 1978

3. Guidelines and Standards for School Food Programs
Department of Education, 1980

4. Province of New Brunswick School Directory School Year 1981-82
Department of Education

APPENDIX

APPENDIX I

SCHOOL FOOD SERVICE QUESTIONNAIRE

Name of Nurse:_____ Date:_____

Name of School_____ School District:_____

Principal:_____School Population:_____

No. of students staying for lunch:_____ No. of students buying lunch items:_____

1. Is there a school lunch program?_____Yes _____No

   If yes, indicate how often: ___daily ___1/week ___2/week ___3/week ___4/week

   If yes, indicate who provides lunch program:___volunteers ___teachers
   _____ contract company(indicate name _____) _____private caterer

2. Is there a lunch supplement program_____yes _____no

   If yes, indicate items offered_____

   If yes, indicate how often:___daily ___1 day/week ___2 days/week ___3 days/week
   ___ 4 days/week

3. Is there a breakfast supplement program ____yes ___no

   If yes, indicate items offered_____

4. Is there a canteen in the school? _____yes _____no

   If yes, indicate food items sold: ___chocolate milk ___white milk ___pop
   ___bars ___chips ___candy ___gum ___minisips ___cough drops
   ___ice cream bars ___fruit drinks ___nuts ___fruit ___other(please
   indicate items:_____)

5. Is there a vending machine in the school? ____yes ____no

   If yes, indicate food items sold: ___chocolate milk ___white milk ___pop
   ___bars ___chips ___candy ___gum ___fruit ___fruit drinks
   ___other (please indicate items_____)

6. Are food items sold for fund raising purposes? ___yes ___no

   If yes, indicate food item sold:___FRUIT ___NUTS ___CHOC. BARS _____ OTHER

Check the appropriate items to indicate those foods included on the menu:

A. Dessert choices daily: ___fruit ___pudding ___cakes & pastries
___plain ice cream ___ice cream sundaes ___jello
___yogurt ___ice doughnuts ___none ___other(please
indicate_____)

B. Vegetable choices daily: ___salads ___cooked vegetables ___none
other(please indicate_____)

C. Beverages included daily: ___white milk ___chocolate milk ___pure juice
___fruit drinks ___mini sips

QUESTIONNAIRE CONT'D

5. Are french fries served? ___yes ____no

If yes, are these served ___daily ___1-2 times/week ___other(please indicate_____)

If yes, are french fries served only as part of a whole meal? ___yes ___no

6. Are deep fried foods served daily? ___yes ___no

If yes, indicate type of food served ___fish ___onions ___other(please indicate_____)

Indicate main course items offered:_____

_____

7. Is there a nutrition promotion carried out in this school each year? ___yes ___no

8. RATE THE SCHOOL PROGRAM SCHOOL SCORE + ___

CANTEEN VERY GOOD ___ GOOD ___ POOR ___ VERY POOR ___ - ___

LUNCH VERY GOOD ___ GOOD ___ POOR ___ VERY POOR ___

APPENDIX II

SCHOOL FOOD SERVICES AND NUTRITION PROMOTION

SD = School District
E = Elementary Schools
S = Secondary Schools

PUBLIC HEALTH REGION I

SCHOOL POPULATION ADJUSTED FOR P.H. REGION

	*POPULATION STAYING FOR LUNCH		SD	N	LUNCH PROGRAM			LUNCH SUPPLEMENT PROGRAM			BREAKFAST			CANTEEN			VENDING MACHINE			FUND RAISING			NUTRITION PROMOTION		
					%	E	S	%	E	S	%	E	S	%	E	S	%	E	S	%	E	S	%	E	S
	89%	1,847	39	8	77	5	2	22	1	1				36	2	2	9	1	0	45	2	3	66	5	1
	88%	943	40	3	33	0	1	66	2	0				33	0	1				33	0	1	66	2	0
	68%	2,185	12	13	85	7	4	23	2	1	15	1	1	7	1	0				15	2	0	69	6	3
	63%	5,486	13	28	71	12	8	46	8	5	11	0	3	43	6	6	3	0	1	21	4	2	82	15	8
	84%	1,952	14	6	40	2	2	33	2	0	16	1	0	50	0	3				33	1	1	66	3	1
	30%	3,992	15	32	37	5	7	34	10	1	9	0	3	37	7	5	12	1	3	56	12	6	84	20	7
	55%	1,289	16	7	28	0	2	28	1	1				71	2	3	14	0	1	89	1	3	100	4	3
	52%	490	17	4	50	1	1	25	1	0				25	1	0				100	3	1	100	3	1
TOTAL	53%	18,173		101		32	27		27	9		2	7		19	20		2	5		25	17		58	24
						59			36			9			39			7			42			82	
						(58%)			(36%)			(9%)			(39%)			(7%)			(42%)			(81%)	

*ESTIMATED

N.B. Total Elementary Schools Reporting 69
Secondary Schools Reporting 32

SCHOOL FOOD SERVICES AND NUTRITION PROMOTION

SD = School District
E = Elementary Schools
S = Secondary Schools

PUBLIC HEALTH REGION II

SCHOOL POPULATION ADJUSTED FOR P.H. REGION

*POPULATION STAYING FOR LUNCH		SD	N	LUNCH PROGRAM			LUNCH SUPPLEMENT PROGRAM			BREAKFAST			CANTEEN			VENDING MACHINE			FUND RAISING			NUTRITION PROMOTION		
				%	E	S	%	E	S	%	E	S	%	E	S	%	E	S	%	E	S	%	E	S
63%	205	16	2										50	0	1	100	1	1	50	1	0	100	1	1
72%	1,967	18	8	12	0	1	50	3	1	12	0	1	25	1	1	25	0	2	37	1	2	75	3	3
85%	6,136	19	15	20	0	2	20	2	1	20	1	2	53	3	5	13	1	1	80	7	5	87	8	5
49%	9,040	20	57	28	6	9	18	11	1	9	3	2	63	26	8	22	4	8	57	21	10	77	33	9
91%	1,640	21	7	43	2	1	14	1	0	43	2	1	86	5	1				43	2	1	71	4	1
94%	450	22	2	100	1	1							50	1	0	50	1	0	50	0	1	100	1	1
63%	1,987	23	8	62	2	3	37	3	0				62	1	4	25	0	2	37	0	3	87	4	3
100%	119	24	1				100	1	0				100	1	0	100	1	-	100	1	0	100	1	0
TOTAL	63% 21,544		100	11	17		21	3		6	6		38	20		8	14		33	22		55	23	
					28			24			12			58			22			55			78	
					(28%)			(24%)			(12%)			(58%)			(22%)			(55%)			(78%)	

*ESTIMATED

N.B. Total Elementary Schools 74
Secondary Schools 27

SCHOOL FOOD SERVICES AND NUTRITION PROMOTION

SD = School District
E = Elementary Schools
S = Secondary Schools

PUBLIC HEALTH REGION III

SCHOOL POPULATION ADJUSTED FOR P.H. REGION

*POPULATION STAYING FOR LUNCH		SD	N	LUNCH PROGRAM %	E	S	LUNCH SUPPLEMENT PROGRAM %	E	S	BREAKFAST %	E	S	CANTEEN %	E	S	VENDING MACHINE %	E	S	FUND RAISING %	E	S	NUTRITION PROMOTION %	E	S
89.	1,930	24	9	33	2	1	22	2	0	____			88	4	4	22	0	2	55	2	3	88	5	3
44	1,823	25	15	27	1	3	33	5	0	____			40	3	3	6	0	1	67	7	3	6	1	0
53	6,141	26	22	18	0	4	59	12	1	9	0	2	36	5	3	23	0	5	45	7	3	45	7	3
70	653	27	4	25	0	1	____			____			50	0	2	50	1	1	50	0	2	50	1	1
52.	1,073	28	8	25	1	1	50	3	1	____			75	3	3	25	1	1	62	3	2	____		
79.	2,275	29	8	50	2	2	50	3	1	12	0	1	50	3	1	50	1	3	37	0	3	100	4	4
85.	2,145	30	7	86	3	3	57	3	1	____			86	3	3	71	2	3	86	3	3	71	2	3
42.	1,004	31	8	88	5	2	25	0	2	13	1	0	38	2	1	38	1	2	38	1	2	75	3	3
95.	1,418	9	7	14	0	1	57	4	0	____			57	1	3	28	0	2	43	0	3	71	4	1
TOTAL	61. 18,462		88		14	18		32	5		1	3		24	23		6	20		23	24		32	18
					32			37			4			47			26			47			50	
					(36%)			(42.)			(5.)			(53)			(30)			(53.)			(57.)	

*ESTIMATED

N.B. Total Elementary Schools Reporting 59
Secondary Schools Reporting 29

SCHOOL FOOD SERVICES AND NUTRITION PROMOTION

SD = School District
E = Elementary Schools
S = Secondary Schools

PUBLIC HEALTH REGION IV

*POPULATION STRATUM FOR LUNCH		SD	N	LUNCH PROGRAM %	E	S	LUNCH SUPPLEMENT PROGRAM %	E	S	BREAKFAST E	S	CANTEEN %	E	S	VENDING MACHINE %	E	S	FUND RAISING %	E	S	NUTRITION PROMOTION %	E	S
30	700	1	5	100	4	1						40	1	1	40	1	1	80	3	1	100	4	1
44	4,450	32	10	60	3	3	10	0	1			20	0	2	40	1	3	30	1	2	70	4	3
51	3,489	33	22	73	13	3	68	12	3	18	3	1	27	4	2	14	1	2	50	8	3	45	7	3
TOT.47	8,639		37		20	7		12	4		3	1		5	5		3	6		12	6		15	7
					27			16			4			10			9			18			22	
Total Elementary Schools 27					(73%)			(43%)			(11%)			(27%)			(24%)			(49%)			(59%)	
Secondary Schools 10																								

PUBLIC HEALTH REGION V

*POPULATION STRATUM FOR LUNCH		SD	N	LUNCH PROGRAM %	E	S	LUNCH SUPPLEMENT PROGRAM %	E	S	BREAKFAST E	S	CANTEEN %	E	S	VENDING MACHINE %	E	S	FUND RAISING %	E	S	NUTRITION PROMOTION %	E	S
27	1,335	35	6	50	2	1	17	1	0			17	1	0				67	3	1	83	4	1
47	1,014	36	5	40	1	1						20	1	0				40	1	1	80	4	0
38	1,196	37	5	40	1	1	40	1	1			20	1	0	40	2	0	20	1	0	80	4	0
58	1,267	38	6	40	1	1	60	3	0						40	2	0				40	2	0
TOT.58	4,812		21		5	4		5	1				3	0		4	0		5	2		14	1
					9			6					3			4			7			15	
					(43%)			(29%)					(14%)			(19%)			(33%)			(71%)	

*ESTIMATED

N.B. Total Elementary Schools Reporting 17
Secondary Schools Reporting 4

SCHOOL FOOD SERVICES AND NUTRITION PROMOTION

SD = School District
E = Elementary Schools
S = Secondary Schools

PUBLIC HEALTH REGION VI & VII

SCHOOL POPULATION ADJUSTED FOR P.H. REGION

	*POPULATION STAYING FOR LUNCH	SD	N	LUNCH PROGRAM %	E	S	LUNCH SUPPLEMENT PROGRAM %	E	S	BREAKFAST %	E	S	CANTEEN %	E	S	VENDING MACHINE %	E	S	FUND RAISING %	E	S	NUTRITION PROMOTION %	E	S
60	2,145	5	10	70	5	2	60	4	2				20	2	0	20	1	1				70	5	2
50	1,577	6	9	44	2	2	11	0	1				22	1	1	22	0	2	11	1	0	55	3	2
60	3,477	7	19	58	7	4	5	1	0	5	0	1	26	4	1	10	0	2	16	0	3	84	12	4
61	3,090	8	18	61	7	4	33	4	2				61	7	4	67	0	3	27	3	2	77	9	5
55	1,920	10	15	27	1	3	27	3	1				47	4	3	6	0	1	47	3	4	93	10	4
69	783	39	3	66	1	1	33	1	0				33	0	1				33	0	1	66	1	1
57	3,296	41	14	78	7	4	43	5	1	7	1	0	50	3	4	7	0	1	22	1	2	86	10	2
79	2,856	42	8	37	2	1	50	3	1	12	0	1	50	3	1	37	2	1	62	4	1	75	6	0
TOTAL	60 18,944		96		32	21		21	8		1	2		24	15		3	11		12	13		56	20
					53			29			3			39			14			25			76	
					(55)			(30)			(3)			(41)			(15)			(26)			(79)	

*ESTIMATED

Total Elementary Schools Reporting 72
Secondary Schools Reporting 24